

SELF-ALIGNED PATTERN FORMATION USING DUAL WAVELENGTHS

ABSTRACT OF THE DISCLOSURE

[0044] An integrated circuit fabrication process for patterning features at sub-lithographic dimensions is disclosed herein. The process includes sequentially exposing a of a film of arylalkoxysilane with a photobase generator, and catalytic amount of water coated on top of a conventional lipophilic photoresist layer provided over a substrate and exposed to a radiation at a first and a second lithographic wavelengths. The first lithographic wavelength is shorter than the second lithographic wavelength. Exposure to the first lithographic wavelength causes a self-aligned mask to form within the photoresist layer.

5